

**Abstract**

A tone control apparatus is provided with a desired filter response input unit 11 for inputting a desired filter response into the tone control apparatus, a spectrum calculating unit 12 for calculating a Fourier spectrum for the set filter response which is inputted by the desired filter response input unit 11, a spectrum smoothing processing unit 13 for performing smoothing processing on the Fourier spectrum calculated by the spectrum calculating unit 12, a cepstrum calculating unit 14 for converting the Fourier spectrum smoothed by spectrum smoothing processing unit 13 into a cepstrum, and an LMA filter 15 to which the cepstrum calculated by the cepstrum calculating unit 14 is set as the filter factor of the LMA filter. The tone control apparatus also has an input terminal 16 for inputting a sound signal into the LMA filter 15, and an output terminal 17 for outputting a sound signal.